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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/541,451

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EXAMINER

ZIMMER, MARC S

ART UNIT

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1796

MAIL DATE

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03/24/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/541,451	Applicant(s) MASUTANI ET AL.	
	Examiner MARC S. ZIMMER	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 45-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 45-47 and 49-51 is/are rejected.
- 7) ☒ Claim(s) 48 and 52 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

Applicant has cancelled claims 1-44 and added new claims 45-52. However, in doing so they have introduced previously unelected embodiments of the fluororesin (A), the stain-proofing component (B), and the curing agent (C) into the independent claim. The Examiner's earlier election of species requirement applies to the new claims and, hence, embodiments of the invention where the fluororesin contains a carboxy group, component (B) is a liquid fluoropolyether, or the curing agent (C) is an epoxy compound, aziridine, or carbodiimide are not being considered at the present time as to their merits.

The Examiner agrees that Hanada does not anticipate the present claims because it does, in fact, contemplate first reacting the polysiloxane component corresponding to claimed component (B) with the curing agent corresponding to claimed component (C) prior to combining the polysiloxane and the fluororesin corresponding to claimed component (A). That is to say, the reference does not disclose a product-forming composition containing an amino-functional polysiloxane and a fluororesin containing hydroxyl moieties insofar as the amino groups are reacted with the curing agent before the fluororesin is introduced. However, the Examiner believes that there is another foundation for rejection that addresses this difference.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 45-47, 49-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanada et al., U.S. Patent # 5,621,042.

Previously, Hanada et al., U.S. Patent # 5,621,042 had been cited as a basis for rejection under 35 U.S.C 102. Applicant is indeed correct that the claims, as now written, are not anticipated by Hanada because that reference discloses reacting the amino groups of an amino-functional polysiloxane with an isocyanate compound prior to combining it with a fluoro-resin bearing hydroxyl groups. On the other hand, the fluoro-resin is characterized in one embodiment as having groups that are reactive with isocyanate groups and, hence, there is at least an implied intent to couple together the fluoro-resin and the polysiloxane when forming a film. The difference between the claimed composition and that of the prior art are that the isocyanate compound corresponding to claimed component (C) is actually reacted with the polysiloxane corresponding to claimed component (B) prior to mixing with the hydroxy-functional fluoro-resin corresponding to (A).

There is, however, case law pertaining to method claims that says that it is obvious to change the order of steps in a process where the claimed order of steps has not been clearly illustrate provide an unexpectedly superior outcome. *In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946) (Selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results); see also *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930) (Selection of any order of

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mixing ingredients is prima facie obvious.) In light of this ruling, it is the Examiner's position that it would have been obvious to reverse the steps of the Hanada process such that the isocyanate compound was not reacted first with the polysiloxane component and, instead, they were all added together thereby realizing an equivalent composition.

As for Applicants' emphasis on the difference between a film obtained from a hydroxyl-functional polysiloxane and that obtained from an amino-functional siloxane, the Examiner is unconvinced that the results are all that meaningful primarily because of the qualitative nature of the measurements. Applicant points out that, whereas those films derived from an amino-functional polysiloxane received an "A" ranking in the stain removing test, those derived from hydroxyl-functional polysiloxane received a "B" rating where "B" means that there was 5 to 15% residue and "A" means that there was less than 5% residue. However "less than 5%" can connote, for instance, 4.999% and "greater than 5%" embraces, for example 5.001%. Therefore, it is difficult to ascertain just how pronounced this effect is, if it is pronounced at all. Accordingly, the Examiner is hesitant to remove the rejection on this basis.

As for claim 46, there is no hydroxyl value disclosed in connection with the fluororesin but the amount of isocyanate-functional compound employed in the Examples seems to be consistent with the a polymer that adheres to this limitation assuming a 1:1 ratio.

Concerning claim 47, the formulae in column 3 representing the structure of the amine-modified polysiloxane embraced compounds where this limitation would be satisfied.

As for claim 50, 3 parts of the isocyanate-modified polysiloxane is added to 300 parts of the fluororesin in Referential Example 3 in column 14 and, thus, the lower endpoint of the recited range is anticipated.

Allowable Subject Matter

Claims 48 and 52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Isocyanato-functional silanes are mentioned in the context of being a separate modification compound for the fluororesin aside from the isocyanate-modified polysiloxane. The Examiner's rejection is constructed in a way that a diisocyanate must fulfill the role of the curing agent.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARC S. ZIMMER whose telephone number is (571)272-1096. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

March 23, 2009

/Marc S. Zimmer/
Primary Examiner, Art Unit 1796